REMARKS

The Amendment

The amendments in the specification correct a typographical error and update the priority information.

Claims 1, 7, and 8 are amended to correct the antecedent basis.

New Claim 11 is dependent on Claim 1.

No new matter is added in any of the above amendments. The Examiner is requested to enter the amendments and reconsider the application.

The Response

Priority

Applicant has amended the specification and updated the priority information.

35 U.S.C. §112 Second Paragraph Rejections

Claims 1-10 are rejected under 35 U.S.C. §112 as allegedly being indefinite for failing to particularly point our and distinctly claim the subject matter which applicant regards as the invention. The rejection is traversed in parts and overcome in parts in view of the amendments.

Applicant has amended the claims to recite "said isolated tumor cells and/or pre-tumor cells" to correct the antecedent basis.

The Examiner states that it is not clear what cells are being administered. The specification clearly describes that the types of cells for use in the instant invention can be present in an organism, or can be autologous or allogenic cells (page 3, lines 29-30 through page 4, lines 1-3).

Pre-tumor cells are different from normal cells in that pre-tumor cells are those cells that contain the genetic background to become tumor cells. Chronic infection of cervical cells

with human papilloma viruses (HPV) generates HPV-transduced cervical cells, which are an example of pre-tumor cells (page 3, line 24). Robinson *et al.* (WO 94/24267, page 4, lines 17-18) report that chronic infection with human papilloma viruses (HPV) is associated with cervical carcinoma.

Another example of pre-tumor cells are HBV (hepatitis B virus)-transduced liver cell which could create a liver cancer (Robinson *et al.*, WO 94/24267, page 3, lines 30-31).

Therefore, the §112, the second paragraph rejection of Claims 1-10 should be withdrawn.

Double Patenting Rejections

Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,171,597. A Terminal Disclaimer is filed herewith to overcome this rejection.

Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,448,074. A Terminal Disclaimer is filed herewith to overcome this rejection.

Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 4, 6, and 10 of U.S. Patent No. 6,207,453. A Terminal Disclaimer is filed herewith to overcome this rejection.

Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 4, 6, and 7 of U.S. Patent No. 6,440,742. A Terminal Disclaimer is filed herewith to overcome this rejection.

35 U.S.C. 103(a) Rejections

Claims 1-10 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Robinson *et al.*, (WO 94/24267), and Chiorini *et al.* (Human Gene Therapy, Dec. 199). Applicant respectfully traverses this rejection.

Claims 1-10 are directed to a method of treating a cancer patient comprising administering to a cancer patient isolated tumor and/or pre-tumor cells that are transduced with an Adeno-Associated Virus vector comprising a foreign DNA coding for a protein that boosts the immuogenicity of said isolated tumor cells and/or pre-tumor cells. **The present method differs from the cited references in that (a) the present method administers the isolated tumor and/or pre-tumor cells to a patient, and (b) the present method is a method of treating a cancer patient.**

At page 22, lines 16-24, Robinson, *et al.* disclose that polynucleotides encoding the co-stimulatory factor and target antigen polypeptide may be introduced into dendritic cells or cells from a skin biopsy; the cells containing the recombinant polynucleotide may be used to confer immunity to individuals. Robinson, *et al.* do not teach or suggest administering pre-transduced isolated tumor and/or pre-tumor cells to a patient.

Robinson, *et al.* disclose methods of conferring partial immunity on an individual to an infectious intracellular pathogenic agent (see Abstract). Robinson, *et al.* do not disclose any data that cells transformed with a retrovirus can be used as a therapeutic agent to treat cancer successfully.

On the contrary, the present invention has demonstrated for the first time that AAV-transduced tumor cells or pre-tumor cells are effective in treating cancer. Examples 4 and 5 show that the tumor burden of mice were reduced by injecting tumor cells, which had been transduced with an AAV vector expressing a protein that boosted the immunogenicity of the tumor cells, into the mice.

The addition of Chiorini *et al.* does not cure the deficiency of Robinson. Chiorini *et al.* disclose a rAAV packaging system that can be used to transduce the human myeloma cell lines LP-1 and RPMI-8226 in order to increase the percentage of cells expressing B7-2 (see Abstract, and page 1537, right column, to page 1538, left column). Chiorini *et al.* do not disclose a method of treating a cancer patient, nor do Chiorini *et al.* disclose administering to a patient transduced isolated tumor cells and/or pre-tumor cells.

Therefore, the 35 U.S.C. 103(a) of Claims 1-10 should be withdrawn.

CONCLUSION

Applicant believes that the application is in good and proper condition for allowance. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is encouraged to call the undersigned at (650) 463-8181.

Respectfully submitted,

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Enclosure: 4 Terminal Disclaimers